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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/567,667	02/09/2006	Peter Tiemann	2003P09584WOUS	4009
22116 7590 05/02/2007 SIEMENS CORPORATION INTELLECTUAL PROPERTY DEPARTMENT 170 WOOD AVENUE SOUTH ISELIN, NJ 08830			EXAMINER NGUYEN, NINH H	
			ART UNIT 3745	PAPER NUMBER
			MAIL DATE 05/02/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

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<b>Office Action Summary</b>	<b>Application No.</b> 10/567,667	<b>Applicant(s)</b> TIEMANN, PETER	
	<b>Examiner</b> Ninh H. Nguyen	<b>Art Unit</b> 3745	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 8-16 is/are pending in the application.  
     4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 8-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 February 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |  |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>02/09/06</u> . | 6) <input type="checkbox"/> Other: ____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 112*

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 12 and 15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 12, line 3, there is a lack of antecedent basis for the limitation "the groove side wall". Also it is unclear which groove side wall Applicant is referring to since there are more than one groove side wall.

Claim 15 the limitation "a guide vane or a carrier ring having a groove" is indefinite since it is unclear that specifically what the sealing system comprises.

### *Claim Rejections - 35 USC § 102*

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

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4. Claims 8-10, 14, and 15, as far as they are definite, are rejected under 35 U.S.C. 102(b) as being anticipated by Wilkinson (4,889,469).

Wilkinson discloses an axial flow gas turbine engine arranged about a central axis (Figs. 1, 2), comprising: a compressor section; a combustion chamber; a turbine section having a plurality of guide vane rings and rotor blade rings arranged in axial succession in a hot-gas duct that contains a hot gas flow; a cooling air flow 41 for cooling the guide vane rings and the rotor blade rings, where the pressure of the cooling air flow inherently decreases in the direction of the hot gas flow; and a sealing element 34 arranged between a guide vane ring and a directly adjacent rotor blade ring and extends as a single piece around at least a quarter of a circle concentric with the central axis of the engine (the seal 34 is an annular ring; col. 3, lines 1-3); and

wherein the sealing element is formed as an annular metal sheet with a surface extending in the radial direction and having an outer and an inner edge (Fig. 2; col. 3, lines 1-3).

5. Claims 8-16, as far as they are definite, are rejected under 35 U.S.C. 102(e) as being anticipated by Arness et al. (7,094,025).

Arness discloses an axial flow gas turbine engine arranged about a central axis which inherently comprising: a compressor section; a combustion chamber; a turbine section inherently having a plurality of guide vane rings and rotor blade rings arranged in axial succession in a hot-gas duct that contains a hot gas flow; an inherently cooling air flow (not shown) for cooling the guide vane rings and the rotor blade rings, where the pressure of the cooling air flow inherently decreases in the direction of the hot gas flow; and a sealing element in form of a retention plate

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36 (Fig. 1) arranged between a guide vane ring and a directly adjacent rotor blade ring and extends as a single piece around at least a quarter of a circle concentric with the central axis of the engine (annular retention plate 36 col. 3, lines 55-61);

wherein the sealing element 36 inner edge is arranged in grooves within a guide vane that is located in the side furthest from the hot-gas duct and the outer edge is arranged in a carrier groove (Fig. 1);

wherein the sealing element 36 is clamped to the groove side wall using a bolt 46 which presses the sealing element onto the opposite platform groove side wall and carrier groove side wall (Fig. 1);

wherein the guide vanes each have an axial fixed point at which they are fixed against axial displacement in the guide vane carrier by a hooked formation (Fig. 1), with the sealing element 36 being arranged in the region of the axial fixed points (Fig. 1); and

wherein the guide vanes each have an axial fixed point at which they are fixed against axial displacement in the guide vane carrier by a hooked formation (Fig. 1), with the sealing element being arranged opposite the region of the axial fixed points.

### ***Prior Art***

The prior art made of record but not relied upon is considered pertinent to applicant's disclosure and consists of 3 patents.

Chiu et al. (7,040,857), Tiemann (6,702,549), and Bolms (6,682,300) are cited to show different seals for turbines.


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***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Ninh Nguyen whose telephone number is (571) 272-4823. The examiner can be normally reached on Monday-Friday from 7:30 A.M. to 5:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Look, can be reached at (571) 272-4820. The fax number for this group is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, please go to <http://pair-direct.uspto.gov> or contact the Electronic Business center (EBC) at 866-217-9197 (toll-free).

  
NINH H. NGUYEN  
PRIMARY EXAMINER

Nhn  
April 27, 2007